

**Notice of Allowability**

Application No.

10/660,660

Examiner

Anna Kinney

Applicant(s)

STIGSSON, LARS

Art Unit

1731

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 9/12/03.
2. ☒ The allowed claim(s) is/are 1-14.
3. ☒ The drawings filed on 12 September 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All   b) ☐ Some\*   c) ☐ None   of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 9/12/03
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 20050429
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

### EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Benoit Castel on May 5, 2005.

The application has been amended as follows:

**In the Information Disclosure Statement:**

The entry "4,111,759" is crossed out, because the reference is incorrect. The correct patent number has been entered in form 892.

**In the Specification:**

On page 3, line 16, "autocaustisation" is replaced by --autocausticisation--.

On page 4, line 3, the quotation mark is removed. Also on page 4, line 23, the term "1990ties" is replaced by --1990s--.

On page 5, line 2, the term "AQ-AQ" is replaced by --kraft-AQ--. On page 5, line 5, the patent number "4,111,759" is replaced by --4,116,759--. Also on page 5, line 14, the word "borat" is replaced by --borate--, and on line 19, the word "patens" is replaced by --patent--.

On page 8, line 21, the word "opens" is replaced by --open--.

On page 10, between lines 22 and 23, the following paragraph is inserted: --The solid or liquid ash stream from a recovery boiler or gas generator comprises alkali

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metaborate and alkali carbonate, which substances, or corresponding ions after dissolution of the solid or liquid ash stream in an aqueous solution, are present in a combined concentration which is higher than the combined concentration of other dissolved compounds originating from dissolution of said solid or liquid ash stream in the aqueous solution.--

On page 14, line 4, the word "where" is replaced by --were--.

**In the Claims:**

In claim 1, step (b), lines 2 and 3, the word "on" is replaced by --one--. Also in claim 1, step (e), the period (.) at the end of line 5 is replaced by a comma (--,--).

Further, in claim 1, step (e) (ii), the period (.) at the end of line 7 is also replaced by a comma (--,--).

In claim 2, a period (--.) is added at the end of line 4.

In claim 3, line 2, the word "wherein" is replaced by --where--. In line 3, the word --material-- is added after the phrase "the lignocellulosic".

In claim 5, "[[3 and]]" has been deleted.

In claim 9, line 2, the word "is" is deleted.

In claim 10, line 4, the word "limekiln" is replaced by the phrase --lime kiln--.

In claim 11, line 2, the number "1" is replaced with the number --4--. Also, at the end of line 3, the word "preferably" is replaced by --including--.

In claim 12, line 2, the number "1" is replaced with the number --4--.

In claim 13, line 5, the phrase ", and yet more preferably in a range from about 1.5 to 4" is deleted.

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The following new claim 14 has been added: --14. (new) Process according to claim 1 wherein a boron compound in the alkaline buffer solution in step b) is present in an amount providing a sodium plus potassium to boron ((Na + K)/B) molar ratio in the alkaline buffer solution in the range of from about 1.5 to 4.--

### ***Reasons for Allowance***

The following is an examiner's statement of reasons for allowance: The primary reason for allowance of the claims is the inclusion of the concentration limitation in the independent claim (Claim 1, step e) iii)). This limitation was not found in the prior art references.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent 6,770,168 shows a substantially sulfide-free process for oxygen pulping of lignocellulosic material and recovery of pulping chemicals, including sodium and boron compounds as an alkaline buffer, a prehydrolysis step, the use of an aromatic organic compound catalyst, gasification of spent liquor, and the minimization of a causticizing stage. U.S. 6,663,749 shows the use of sodium metaborate as an autocausticizer for sodium carbonate with varying sodium to boron molar ratios. U.S. Patent 3,594,270 shows the use of sodium hydroxide with

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metaborate as applied to sulfite pulp. U.S. Patent 3,068,141 shows the use of sodium metaborate and a strong alkali to refine kraft pulp.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anna Kinney whose telephone number is (571) 272-8388. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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